



**BARTLETT**  
**ENGINEERING & SURVEYING, PC**

1906 Nash Street North Wilson, NC 27893-1726  
Phone: (252) 399-0704 Fax: (252) 399-0804  
www.bartlett.us.com

January 11, 2016

Ming-Tai Chao, P.E. Environmental Engineer  
Permitting Branch, Solid Waste Section  
Division of Waste Management  
1646 Mail Service Center  
Raleigh, NC 27699-1646

Fac/Perm/Co ID #	Date	Doc #
98-09	01/14/16	25440

Reference: Wilson County C&D Landfill –2015 Permit Amendment Application Addendum,  
Permit#98-09

Mr. Chao,

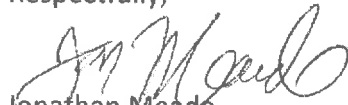
On behalf of Wilson County, Bartlett Engineering and Surveying, P.C. is submitting an addendum to the Operation Plan of the 2015 Permit Amendment Application for the West-Side C&D LF, permit# 98-09 to allow use of the residual glass/porcelain A2 Fines as the haul road material (note: the CSP material will not be used). Product information and handling is as follows:

- A2 fines material residues to be used at the Wilson County C&D LF will be obtained from the facility located at:  
Reflective Recycling, Inc.  
2606 Wilco Boulevard  
Wilson, NC 27893  
Contact Info: Bill Clark  
Phone: 281-520-0613  
Email: [Bill.Clark@Ref-Ind.com](mailto:Bill.Clark@Ref-Ind.com)
- While a quantitative determination of the percentage of non-conforming waste material was not performed, a visual determination of the quantity of paper, organic debris, bones/food wastes, and plastic in the A2 Fines and CSP material is estimated as approximately <5% by volume or <1% by weight by Babb and Associates. No more than 10% percent of non-conformance C&D solid wastes to be allowed in the A2 Fines. Random screening protocols on the beneficial use material is required and to be conducted by the qualified landfill staff/operator to ensure the landfill facility does not intend to receive prohibited waste at the landfill disposal unit.
- The maximum quantity of 500 tons of residual glass/porcelain (A2 Fines) allowed per year for use at the landfill facility.

- The material/residue to be temporarily stored inside the active cell of the C&DLF adjacent to the working face and used approximately on monthly intervals. If the County plans to temporarily store the material outside the active cell of the C&DLF waste footprint, the residue/material must be stored in a concrete bay/bin and/or covered to prevent rainwater infiltration into the pile thus generating a leachate/stormwater runoff concern.
- The material/residue to be used as the landfill haul material must be inside the C&D landfill waste footprint.
- The amount of the material/residue used at the facility per period of time must be weighted at the on-site scale house, recorded, and documented in the annual report. The record must be placed in the facility operating record.

Should you have any questions or require additional information, please do not hesitate to call our office.

Respectfully,

A handwritten signature in black ink, appearing to read "Jon Meade", written over the printed name.

Jonathan Meade  
Environmental Specialist

## Chao, Ming-tai

---

**From:** Jon Meade <jonm@bartletteng.com>  
**Sent:** Monday, January 11, 2016 8:00 AM  
**To:** Chao, Ming-tai  
**Cc:** Mussler, Ed; Watkins, Jason; College, John H; Andy Davis  
**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09  
**Attachments:** NCDWM Rev Addendum Letter 1-11-16.pdf

Ming,

Attached is the revised addendum letter for use of A2 fines at the West Side C&DLF, 98-09. Please let me know if you need any additional information. Thanks for the help! jon

**From:** Chao, Ming-tai [mailto:ming.chao@ncdenr.gov]  
**Sent:** Friday, January 08, 2016 2:57 PM  
**To:** Jon Meade <jonm@bartletteng.com>  
**Cc:** Mussler, Ed <ed.mussler@ncdenr.gov>; Watkins, Jason <jason.watkins@ncdenr.gov>; College, John H <john.college@ncdenr.gov>  
**Subject:** FW: Beneficial use of glass at West side C&DLF, 98-09

Hi Jon:

After reviewing the submittal, the Solid Waste Section has few comments:

Bullet Item 3. Please add the " inside the active cell of the C&DLF" behind the "adjacent to the working face."  
Bullet Item 3. If the County plans to temporarily store the material outside the active cell of the C&DLF waste footprint, please add the following requirement. The residue/material for the beneficial use purposes must be stored in a concrete bay/bin and/or that it being covered to prevent rainwater infiltration into the pile thus generating a leachate/stormwater runoff concern.

Please revise the operation plan accordingly. Thanks.

*Ming Chao*  
Ming-Tai Chao, P.E.  
Environmental Engineer  
Permitting Branch, Solid Waste Section  
NCDEQ, Division of Waste Management  
(Mailing Address)  
1646 Mail Service Center  
Raleigh, NC 27699-1646

(Street Address)  
Green Square, 217 West Jones Street  
Raleigh, NC 27603  
Tel. 919-707-8251  
[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)  
<http://portal.ncdenr.org/web/wm/sw>



Nothing Compares

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

**From:** Mussler, Ed

**Sent:** Friday, January 08, 2016 2:37 PM

**To:** College, John H <[john.college@ncdenr.gov](mailto:john.college@ncdenr.gov)>; Chao, Ming-tai <[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)>

**Cc:** Watkins, Jason <[jason.watkins@ncdenr.gov](mailto:jason.watkins@ncdenr.gov)>

**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09

Yes, Ming, the material can be used on haul roads but in the waste footprint. While I haven't seen this, the material I have seen still contains a bit of contamination, paper and stuff.

Lets do that

---

**From:** College, John H

**Sent:** Friday, January 08, 2016 2:32 PM

**To:** Chao, Ming-tai <[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)>

**Cc:** Watkins, Jason <[jason.watkins@ncdenr.gov](mailto:jason.watkins@ncdenr.gov)>; Mussler, Ed <[ed.mussler@ncdenr.gov](mailto:ed.mussler@ncdenr.gov)>

**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09

Hello Ming,

I would have to agree with Jason's reply. I do think this product will be good on the haul road but needs to be contained inside the waste footprint.

Thanks,

John College

---

**From:** Chao, Ming-tai

**Sent:** Friday, January 08, 2016 1:09 PM

**To:** College, John H <[john.college@ncdenr.gov](mailto:john.college@ncdenr.gov)>

**Cc:** Watkins, Jason <[jason.watkins@ncdenr.gov](mailto:jason.watkins@ncdenr.gov)>; Mussler, Ed <[ed.mussler@ncdenr.gov](mailto:ed.mussler@ncdenr.gov)>

**Subject:** FW: Beneficial use of glass at West side C&DLF, 98-09

Hi John:

The Wilson County West-side CDLF, permit # 98-09 submitted the addendum to the operations plan (see attachment) in request of approval of using A2 fine material/glass for haul road material. Please review and provide any comment or input on the addendum by 01/13/16. If I don't receive any inputs from you by that date, I will assume you approve the addendum and start prepare the draft permit for the County. The existing permit will expire on 01/25/16. Thanks for help.

*Ming Chao*

Ming-Tai Chao, P.E.

Environmental Engineer

Permitting Branch, Solid Waste Section

NCDEQ, Division of Waste Management

**(Mailing Address)**

1646 Mail Service Center  
Raleigh, NC 27699-1646

**(Street Address)**

Green Square, 217 West Jones Street  
Raleigh, NC 27603

**Tel. 919-707-8251**

[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)

<http://portal.ncdenr.org/web/wm/sw>



Nothing Compares

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

**From:** Jon Meade [<mailto:jonm@bartletteng.com>]  
**Sent:** Friday, January 08, 2016 11:42 AM  
**To:** Chao, Ming-tai <[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)>  
**Cc:** Andy Davis <[adavis@wilson-co.com](mailto:adavis@wilson-co.com)>  
**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09

Hi Ming,

Attached is the addendum letter for use of A2 fines on the haul road. Let me know if this is sufficient for submittal or if you need any additional information.

Thanks! jon

**From:** Andy Davis [<mailto:adavis@wilson-co.com>]  
**Sent:** Wednesday, December 30, 2015 11:16 AM  
**To:** Jon Meade <[jonm@bartletteng.com](mailto:jonm@bartletteng.com)>  
**Subject:** FW: Beneficial use of glass at West side C&DLF, 98-09

Jon can you take care of this.

---

**From:** Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]  
**Sent:** Wednesday, December 16, 2015 3:05 PM  
**To:** Andy Davis  
**Cc:** Shackelford, Dennis; College, John H; Mussler, Ed; Robert Bartlett ([robertb@Bartletteng.com](mailto:robertb@Bartletteng.com))  
**Subject:** Beneficial use of glass at West side C&DLF, 98-09

Hi Andy:

After talking with my colleagues Dennis and John in the Field Operations Branch about the beneficial use of the residual glass/porcelain (A2 Fines and CSP) as the haul road material at Wilson County West-Side C&DLF, permit number 98-09, I will suggest that Wilson County to officially propose the use of the residual for beneficial use in the addendum to Operations Plan. In a minimum the Addendum should contain the following info which will be incorporated into the new Permit to Operate for the Wilson County West-Side C&DLF:

1. The narratives/paragraphs to describe the sources of the residual glass/porcelain (A2 Fines and CSP) – the facility name address, physical location, and contact info – phone # & e-mail address. The sources of the material must be inside the approved landfill service area – Wilson County.
2. According to the letter report dated 12/22/2014 (see attached e-mail message), non-conformance C&D solid wastes – paper, organic debris, bones/food wastes, plastics were observed inside the collect waste samples. The County must define/determine the maximum percentage of the non-conformance C&D solid wastes in the proposed residual glass/porcelain (A2 Fines and CSP). Random screening protocols on the beneficial use material is required and conducted by the qualified landfill staff/operator to ensure the landfill facility does not intend to receive prohibit waste at the landfill disposal unit.
3. The maximum quantity of the residual glass/porcelain (A2 Fines and CSP) per year or per period of time will be accepted at the facility.
4. How is the material/residual temporarily stockpiled at the landfill facility? The storage location that is adjacent to working face is a preferable approach; otherwise, the measures or structures to contain leachate must be properly addressed and shown the revised Facility Plan drawing. The maximum duration of the stockpile or how soon the stockpiled material will be used up must be determined in the proposal.
5. The material /residual to be used as the landfill haul material must be inside the C&D landfill waste footprint.
6. Recordation. The amount of the beneficial material used at the facility per period time must be weighted at the on-site scale house and documented in the annual report. The record must be placed in the facility operating record.

Please submit the addendum/proposal in a timely manner so the new permit can be issued to the County by January 15, 2016. If you have any questions please contact me; have a wonderful day!

*Ming Chao*

Ming-Tai Chao, P.E.

Environmental Engineer

Permitting Branch, Solid Waste Section

NCDEQ, Division of Waste Management

**(Mailing Address)**

**1646 Mail Service Center**

**Raleigh, NC 27699-1646**

**(Street Address)**

Green Square, 217 West Jones Street

Raleigh, NC 27603

**Tel. 919-707-8251**

[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)

<http://portal.ncdenr.org/web/wm/sw>



Nothing Compares

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

## Chao, Ming-tai

---

**From:** Watkins, Jason  
**Sent:** Friday, January 08, 2016 2:01 PM  
**To:** Chao, Ming-tai  
**Cc:** College, John H  
**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09

Ming,

My only comment/suggestion is I read "stored adjacent to the working face" to mean within the active cell. If that is the case, I have no concerns with the proposal.

However if material would need to be stockpiled outside the waste footprint, a requirement be added that it either be stored in a concrete bay/bin and/or that it being covered to prevent rainwater infiltration into the pile thus generating a leachate/stormwater runoff concern.

Jason

**Jason M. Watkins, CPM**  
Field Operations Branch Head  
Division of Waste Management – Solid Waste Section  
Department of Environmental Quality

336-776-9674 office  
919-208-0765 mobile  
[jason.watkins@ncdenr.gov](mailto:jason.watkins@ncdenr.gov)

450 W. Hanes Mill Road, Suite 300  
Winston-Salem, NC 27105



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*

---

**From:** Chao, Ming-tai  
**Sent:** Friday, January 08, 2016 1:09 PM  
**To:** College, John H <[john.college@ncdenr.gov](mailto:john.college@ncdenr.gov)>  
**Cc:** Watkins, Jason <[jason.watkins@ncdenr.gov](mailto:jason.watkins@ncdenr.gov)>; Mussler, Ed <[ed.mussler@ncdenr.gov](mailto:ed.mussler@ncdenr.gov)>  
**Subject:** FW: Beneficial use of glass at West side C&DLF, 98-09

Hi John:

The Wilson County West-side CDLF, permit # 98-09 submitted the addendum to the operations plan (see attachment) in request of approval of using A2 fine material/glass for haul road material. Please review and provide any comment or input on the addendum by 01/13/16. If I don't receive any inputs from you by that date, I will assume you approve the

addendum and start prepare the draft permit for the County. The existing permit will expire on 01/25/16. Thanks for help.

*Ming Chao*

Ming-Tai Chao, P.E.  
Environmental Engineer  
Permitting Branch, Solid Waste Section  
NCDEQ, Division of Waste Management

**(Mailing Address)**

**1646 Mail Service Center  
Raleigh, NC 27699-1646**

**(Street Address)**

Green Square, 217 West Jones Street  
Raleigh, NC 27603

**Tel. 919-707-8251**

[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)

<http://portal.ncdenr.org/web/wm/sw>



*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

**From:** Jon Meade [<mailto:jonm@bartletteng.com>]  
**Sent:** Friday, January 08, 2016 11:42 AM  
**To:** Chao, Ming-tai <[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)>  
**Cc:** Andy Davis <[adavis@wilson-co.com](mailto:adavis@wilson-co.com)>  
**Subject:** RE: Beneficial use of glass at West side C&DLF, 98-09

Hi Ming,

Attached is the addendum letter for use of A2 fines on the haul road. Let me know if this is sufficient for submittal or if you need any additional information.

Thanks! jon

**From:** Andy Davis [<mailto:adavis@wilson-co.com>]  
**Sent:** Wednesday, December 30, 2015 11:16 AM  
**To:** Jon Meade <[jonm@bartletteng.com](mailto:jonm@bartletteng.com)>  
**Subject:** FW: Beneficial use of glass at West side C&DLF, 98-09

Jon can you take care of this.

---

**From:** Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]  
**Sent:** Wednesday, December 16, 2015 3:05 PM  
**To:** Andy Davis



**Cc:** Shackelford, Dennis; College, John H; Mussler, Ed; Robert Bartlett ([robertb@Bartletteng.com](mailto:robertb@Bartletteng.com))

**Subject:** Beneficial use of glass at West side C&DLF, 98-09

Hi Andy:

After talking with my colleagues Dennis and John in the Field Operations Branch about the beneficial use of the residual glass/porcelain (A2 Fines and CSP) as the haul road material at Wilson County West-Side C&DLF, permit number 98-09, I will suggest that Wilson County to officially propose the use of the residual for beneficial use in the addendum to Operations Plan. In a minimum the Addendum should contain the following info which will be incorporated into the new Permit to Operate for the Wilson County West-Side C&DLF:

1. The narratives/paragraphs to describe the sources of the residual glass/porcelain (A2 Fines and CSP) – the facility name address, physical location, and contact info – phone # & e-mail address. The sources of the material must be inside the approved landfill service area – Wilson County.
2. According to the letter report dated 12/22/2014 (see attached e-mail message), non-conformance C&D solid wastes – paper, organic debris, bones/food wastes, plastics were observed inside the collect waste samples. The County must define/determine the maximum percentage of the non-conformance C&D solid wastes in the proposed residual glass/porcelain (A2 Fines and CSP). Random screening protocols on the beneficial use material is required and conducted by the qualified landfill staff/operator to ensure the landfill facility does not intend to receive prohibit waste at the landfill disposal unit.
3. The maximum quantity of the residual glass/porcelain (A2 Fines and CSP) per year or per period of time will be accepted at the facility.
4. How is the material/residual temporarily stockpiled at the landfill facility? The storage location that is adjacent to working face is a preferable approach; otherwise, the measures or structures to contain leachate must be properly addressed and shown the revised Facility Plan drawing. The maximum duration of the stockpile or how soon the stockpiled material will be used up must be determined in the proposal.
5. The material /residual to be used as the landfill haul material must be inside the C&D landfill waste footprint.
6. Recordation. The amount of the beneficial material used at the facility per period time must be weighted at the on-site scale house and documented in the annual report. The record must be placed in the facility operating record.

Please submit the addendum/proposal in a timely manner so the new permit can be issued to the County by January 15, 2016. If you have any questions please contact me; have a wonderful day!

*Ming Chao*

Ming-Tai Chao, P.E.

Environmental Engineer

Permitting Branch, Solid Waste Section

NCDEQ, Division of Waste Management

**(Mailing Address)**

**1646 Mail Service Center**

**Raleigh, NC 27699-1646**

**(Street Address)**

Green Square, 217 West Jones Street  
Raleigh, NC 27603  
**Tel. 919-707-8251**  
[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)  
<http://portal.ncdenr.org/web/wm/sw>



Nothing Compares

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*